

REMARKS/ARGUMENTS

Claims 1-4, 6 and 8 and 9 were rejected under Section 103 as being unpatentable over Plantes et al. in view of the Vortex operating manual. Applicant respectfully traverses this rejection. Specifically, Applicant disagrees that it would have been obvious to one of ordinary skill in the art to have selectively connected the tabs of Plantes depending upon the type of water streams being treated as taught by the Vortex operating manual. Applicant hereby incorporates by reference the arguments set forth in the prior Amendment and Response which was responsive to the Office Action having a mailing date of January 22, 2004. As set forth in that Response, Plantes requires alternating current as a source of power. The alternating current has a collapsing field/continual change in polarity thereby neutralizing the magnetic or electrostatic forces that hold particles in colloidal suspension. Secondly, in order to create the high volume flow rates required in Plantes, the closely spaced electroplates therein require alternating current because providing DC power to the electrodes would require truly an astounding amount of amperage to maintain the electrodes at the desired voltage. Although this DC amperage is not stated in Plantes, those skilled in the art will appreciate that DC power is simply infusible with the invention disclosed in Plantes. Therefore, there is simply no motivation to combine the teachings of the Vortex operating manual with Plantes, and any combination of the teachings of the Vortex operating manual with respect to selectively connecting power to the tabs of Plantes clearly ignores the teachings of Plantes, and substitutes hindsight for the teachings of Plantes.

Applicant also traverses the Examiner's reasoning with respect to the last paragraph appearing on page 3 of the current Office Action. There, the Examiner stated that it would have been obvious to one of ordinary skill in the art to use a DC power source when treating wastewater at flow rates or treating high conductivity wastewater where high voltage is not required. The Plantes reference contemplates treating a high volume flow rate, which is one reason why an AC voltage is used with power being applied to each blade/electrode. High conductivity water has no bearing or relationship with respect to high volume flow rate. For example, there could be a very high volume flow rate of liquid to be treated, yet the conductivity of the liquid could be very low. The conductivity of the liquid to be treated and the flow rate of liquid are independent variables in treating the liquid. Regardless of the conductivity of the liquid to be treated in Plantes, utilizing a DC power source and applying power to only selected electrodes in Plantes would ultimately require an extremely high DC power which certainly makes Plantes unsuitable for its intended purpose.

Despite the deficiencies with respect to the combination of the Vortex operating manual and the Plantes reference, claim 1 has been further amended to recite that at least three reaction plate tabs include corresponding tab extensions that extend through the lower portion of the housing. Independent claim 11 has been amended similar to claim 1 in requiring at least three reaction plate tabs including corresponding tab extensions that extend through the lower portion of the housing.

Claims 5, 10-16, and 18-20 were rejected under Section 103 as being unpatentable over Plantes in view of the Vortex operating manual, and further in view of Allen. With respect to the Allen reference, the Examiner stated it would have been obvious to modify Plantes to include tab extensions extending through the lower portion of the housing as taught by Allen in order to increase versatility in tab connection thereby putting electrical connections out of harms way from operators of the apparatus as taught by Allen. Col. 3, lines 13-17 of Allen clearly state that the device is powered by an AC power source. Accordingly, there are only two contacts (contacts 16 and 17) that are utilized to provide electric power to each of the charge plates 19. Figure 2 shows a positive terminal 21 and a negative terminal 22 which are used to provide power to each of the contacts 16, 17 which in turn provide power to each of the charge plates 19. Thus, it is emphatically clear in Allen that because an AC power source is used, only two terminals are required for providing power. As mentioned above, Plantes also exclusively teaches use of an AC power source. Independent claims 1 and 11 require at least three reaction plate tabs that extend through the lower portion of the housing. Use of any more than two terminals in Allen and Plantes clearly defeats the teachings of these references, because an AC connection only requires two terminals. Also, Applicant traverses the second rejection under Section 103 with respect to the combinability of the Allen reference with Plantes and the Vortex operating manual. First, it is noted that the Examiner's reasons for combining the references does not achieve anything more than is already achieved within Plantes or the Vortex operating manual taken alone. More specifically, the Examiner stated it would have been obvious to modify Plantes to include tab extensions extending through the lower portion of the housing as

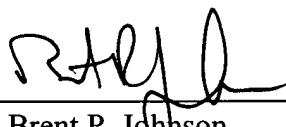
taught by Allen in order to increase versatility in tab connection thereby putting electrical connections out of harms way from operators of the apparatus as taught by Allen. In Plantes as well as the Vortex operating manual, electrical connections are already out of harms way from operators because the connections are isolated from the liquid within the chambers. As shown in Figure 2 of Plantes, the plate tabs 22 extend exteriorly of the housing. In the Vortex operating manual, as shown in picture diagram B, the plate tabs extend above the chamber thereby placing the connections out of harms way. Furthermore, both the device shown in the Vortex operating manual as well as the device shown in Plantes would have to be so reconstructed to include electrical connections extending through the bottom of the housing that it is simply not obvious to modify these references. Therefore, the above mentioned rejections under Section 103 should be withdrawn.

Claims 7 and 17 were rejected under Section 103 as being unpatentable over Plantes in view of the Vortex operating manual, and further in view of Moeglich. Claim 7 depends from claim 1, and claim 17 depends from claim 11. Moeglich fails to cure the deficiencies in the Plantes, Vortex owners manual, and Allen references. Therefore, these rejections under Section 103 should also be withdrawn.

Applicant has made a sincere effort to place the application in a condition for allowance; therefore, such favorable action is earnestly solicited. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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Date: 9/26/05